

# **Design Concepts for the Ahwatukee Community**

from the  
Bicycling and Walking into the 21st Century  
Walkable Communities, Inc.  
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# Contents

<b>Introduction</b>	1
<b>Background on Participating Agencies</b>	
Maricopa Association of Governments	2
Regional Public Transit Agency	2
Arizona Department of Transportation	2
Federal Highways Administration	2
The Governor's Arizona Bicycle Task Force	3
<b>The Bicycling and Walking into the 21st Century Conference: <i>"The Ahwatukee Community"</i></b>	
Presentations on Walkable and Bikeable Communities	3
Mobile Workshop	4
Current Obstacles to Pedestrian and Bicycle Travel in the Study Area	4
Retrofit Options to Encourage Pedestrian and Bicycle Travel in the Study Area	5
Conference Participants	6
<b>Bicycling and Walking into 21<sup>st</sup> Century Conference Recommendations</b>	
Create a Village Center Concept	7
Streets	7
Transit and Bike Facilities	8
Community Commitment	8
<b>Map: Pedestrian and Bicycle Improvement Study Recommendations, Elliot Street from 48<sup>th</sup> Street to 51<sup>st</sup> Street</b>	9
<b>Appendix: Bicycle and Walking into the 21<sup>st</sup> Century Mobile Workshop Inventory/Site Analysis Form</b>	10

## INTRODUCTION



The Walking into the 21st Century Program is designed to increase awareness about walking. The Program also provides information about tools and incentives that will result in more infrastructure for pedestrians, and policies that support walking as a viable transportation mode. As part of the Program, the Maricopa Association of Governments (MAG) coordinated with the Arizona Department of Transportation (ADOT), the Regional Public Transit Agency (RPTA), the Governor's Bicycle Arizona Bicycle Task Force (GABTF) and the Federal Highways Administration (FHWA) to sponsor an annual conference.

The conferences are designed to increase knowledge about public facilities that encourage people to walk instead of driving in single occupancy vehicles. Past conferences featured national experts on planning and designing facilities for walking such as Andreas Duany, Peter Calthorpe, and Antone Nelleson. Last year's Walking into the 21st Century annual event was the Pedestrian and Bicycle Safety Roadshow. One component of the Roadshow was a case study where participants used what they had learned to solve actual problems for the Papago Trail and the Pueblo Grande Museum. The recommendations from the Roadshow are being implemented by the Pueblo Grande Museum and Papago Salado Association.

This year's conference featured Dan Burden from Walkable Communities, Inc.. The Conference focused on transforming four-corner suburban commercial districts around arterial intersections into Village Centers. The purpose of the conference was to develop standard recommendations that could be used throughout the region to address pedestrian and bicycle circulation in these types of typical commercial areas. To assist conference participants in making their recommendations, a prototype study area which demonstrated this land use was identified at on the east side of I-10 at its intersection with Elliot Road in the Awatukee Community in the City of Phoenix. During the conference, participants were encouraged to walk in the study area.

In addition to conference participants, Representatives of the Awatukee Community were invited to attend the conference and participate in the development of recommendations for these types of land uses. The final design recommendations from this conference could be applied to almost any four corner commercial arterial intersection in the region.

## BACKGROUND ON PARTICIPATING AGENCIES

### The Maricopa Association of Governments



The Maricopa Association of Governments (MAG) is the regional planning agency for the Greater Phoenix Metropolitan Area. The Pedestrian Working Group develops the MAG pedestrian program. Working Group members include representatives of local jurisdictions, the Arizona Institute of Architects, the Arizona Society of Landscape Architects and development interests. The program has been in existence for five years, and has resulted in the development of Guidelines and Policies for Pedestrian Areas, five pedestrian events and a pedestrian design assistance program that provides funding for prototypical designs and specifications for pedestrian areas.

### Regional Public Transit Agency



The Regional Public Transportation Authority (RPTA) is the transit planning agency for the Greater Phoenix Metropolitan Area. RPTA supports several bicycle and pedestrian oriented activities with the understanding the public transit riders are pedestrians for part of their trip, that bicyclists utilize bike-on-bus, and that all alternate modes help clean the air. RPTA includes both the Feet First award and the "Silver Spokes" award into their Clean Air Campaign awards. The award is given for outstanding public and private efforts to promote design and construction of facilities that encourage walking and bicycling.



### Arizona Department of Transportation

The Arizona Department of Transportation (ADOT) participates in the MAG Pedestrian Working Group. Through its enhancement funds, ADOT supports the design and construction of projects statewide. ADOT also supports and staffs the Governor's Arizona Bicycle Task Force (GABTF).



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

### Federal Highways Administration

The Federal Highways Administration (FHWA), through the Intermodal Surface Transportation Efficiency Act (ISTEA) and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), has provided funding and assistance for a series of pedestrian oriented projects in the region. It supported the development of the MAG Design Assistance Program and the Pedestrian Area Design Guidelines, and is active in pedestrian education events sponsored by MAG.

## **The Governor's Arizona Bicycle Task Force**

The Governor's Arizona Bicycle Task Force (GABTF) was created in 1986 by Executive Order. The membership of GABTF reflects a balance of the public and private sectors. The public sector agencies include the Departments of Transportation, Public Safety, Education, Health Services and Commerce. Private sector representatives include major bicycling associations, commuting, racing, touring, mountain biking and racing. The 25-member task force is actively involved in providing advice and technical expertise to the Governor's office, state departments, local governments and community organizations.

### **THE BICYCLING AND WALKING INTO THE 21ST CENTURY CONFERENCE: "THE AHWATUKEE COMMUNITY"**

The focus for this year's conference was transforming strip malls and suburban arterial intersections in village centers. The Ahwatukee community was chosen because it provided an excellent prototypical four-corner commercial arterial intersection without facilities that encourage bicycle and pedestrian travel. The objective of the conference was to develop concepts to retrofit the area to include facilities that encourage bicycling and walking, thereby contributing to a vibrant community core.

The two-day conference focused on how streets can be remade or redeveloped to a human-scale that supports walking and bicycling while creating a financially successful and safe environment. It included presentations on elements of planning and designing walk-able and bike-able communities and a mobile workshop which focused on developing recommendations for the Ahwatukee Community.

#### **Presentations on Walk-able and Bike-able Communities**

A visual and interactive presentation, with slides from around the world demonstrated the basic principles of planning and designing bicycle and pedestrian friendly streets, activity centers, neighborhoods, town/city centers and other urban developments.

##### **About Dan Burden**

Dan Burden is director of Walkable Communities, Inc. and has 25 years of experience in developing, promoting, and evaluating alternative transportation facilities, traffic calming practices and sustainable community design. He served for 16 years as Florida Department of Transportation's Bicycle and Pedestrian Coordinator and as a consultant on bicycling issues in China for the United Nations. He has also been a photographer with National Geographic and freelancer with photographs appearing in the New York Times, National Geographic, Better Homes and Gardens, Sierra Club calendars and Weekly Reader. Dan founded Walkable Communities, Inc. in the early 1990's as a non-profit consulting firm in High Springs, Florida. Walkable Communities specializes in sustainable communities, transportation and land use planning, research and implementation of pedestrian, bicycle traffic calming and street improvement projects.

Participants in the conference discussed the abandonment of these types of development and city planning in favor of a more automobile-oriented design. The orientation towards the automobile results in wide streets, high traffic speeds and volumes, vast parking facilities, and buildings set-back or separated from the road. Impacts from these automobile-oriented developments include mobility hardships imposed upon children, the elderly and all others not using an automobile for transportation. This development type also increases transportation costs and contributes to the loss of human exchange and the reduction of public space. In creating a walk-able and bike-able community, there is a dedication to designing places for people.

## **Mobile Workshop**

The mobile workshop provided all participants with the opportunity to explore the I-10 and Elliot Road study area and collaborate with each other to determine what bicycle and pedestrian oriented changes could occur to improve the area and help transform it into a sustainable place. Nearly half of the two-day conference consisted of the mobile workshop and the development of a design recommendation for the 48<sup>th</sup> and Elliot intersection and surrounding businesses and neighborhoods.

All conference participants spent two hours walking the study area, using a site analysis form (see Appendix) to record the conditions that promote or are obstacles to a pedestrian and bicycle friendly environment. Features such as sidewalk conditions, shade provisions, access to neighborhoods and area businesses, perceived level of safety, lighting levels, public art, resting areas and street crossing time allowances were observed and recorded in terms of their compatibility with bicycle and pedestrian travel. It was generally noted that there were little accommodations for bicycles and pedestrians, no shade, high levels of noise from motor traffic, poor access to area shops, and intimidating conditions for bikes and pedestrians within the study area.

Following the walking tour of the study area, conference participants discussed retrofit solutions to which would address the noted obstacles and make the study area, and other intersections throughout the region, more pedestrian and bicycle friendly. Dan Burden led the discussion of obstacles and potential solutions to encouraging pedestrian and bicycle travel in the study area. Highlights of the discussion are listed and discussed below.

## **Current Obstacles to Pedestrian and Bicycle Travel in the Study Area**

### ***Street Design Guidelines***

#### ***C Street widths***

The wider the street the more intimidating it is to cross, walk next to, or ride on; narrower streets slow traffic and encourage bicycle and pedestrian travel.

- Ⓒ *Speed Limits*  
Area streets permit high speeds that increase the level of discomfort for bicyclists and pedestrians.
- Ⓒ *Block Length*  
Excessively long blocks discourage bicycle and pedestrian travel.
- Ⓒ *Turning Radii*  
The 48<sup>th</sup> and Elliot area provides for wide turning radii which enables motorized traffic to maintain higher speeds when turning; narrow turning radii slow traffic.
- Ⓒ *Parking*  
Excessive parking adjacent to streets separates the bicyclist and pedestrian from shops and can give the perception of a wider street

## **Retrofit Options to Encourage Pedestrian and Bicycle Travel in the Study Area**

### ***Traffic Calming Devices***

- Ⓒ *Speed Bump or Hump*  
The speed bump or hump, typically found in parking lots, may be applied in lower level collector and residential streets as a way to slow traffic.
- Ⓒ *Landscaping*  
Landscaping in medians and adjacent to roadways gives the perception of a narrow street, provides shade and beautifies the area.
- Ⓒ *Median refuge*  
The median refuge provides bicyclists and pedestrians with a “rest area” in the middle of the street to enable safer and more accessible travel by bike and foot.
- Ⓒ *Round-about/Traffic Circle*  
These devices are usually used in lieu of a traffic signal and are placed at intersections to break the line of sight along a street and require motorists to slow down at the intersection.

### ***Intersection Design***

- Ⓒ *Crossing Times*  
The time allowance for bicyclists and pedestrians to cross the street is insufficient in order to allow more motorized traffic to pass through.

Ⓒ *Right-Turn-On-Red*

Allowing this option for turning vehicles causes increased conflicts between bicyclists and pedestrians at the intersection.

### ***Urban and Architectural Design***

Ⓒ *Building Setbacks*

Often, in a auto-oriented design, the building or destination is set back from the road with that space filled with parking, which discourages bicycle and pedestrian travel; buildings placed adjacent to the roadway give the perception of a narrow, slower street, and encourage walking and bicycling.

Ⓒ *Shade*

The presence of shade structures or trees in close proximity to buildings provides comfort.

Ⓒ *Public art*

Incorporating art with architecture can create a stronger sense of place while making the bicyclist and pedestrian comfortable with the space.

Ⓒ *Benches or places to rest*

Provisions for rest or relaxation in close proximity to commercial areas, or en route to them, is another level of provisions for bicyclists and pedestrians.

### **Conference Participants**

Almost one hundred planners, engineers, designers, architects, students, elected officials, media, employers, community activists, bike coordinators, professors and community health agencies attended. It is of particular note that the community health agencies have received a grant from the CDC to promote bicycling and walking as a form of exercise for people to reduce health problems especially diabetes in children. Many of the participants were experienced in bicycle and pedestrian safety and design issues. Participants came from all over the state besides the Phoenix metropolitan area: Yuma, Prescott, Tucson, Kingman, Bullhead City, Sierra Vista, Coolidge, Globe and even San Diego.



## **BICYCLING AND WALKING INTO 21<sup>ST</sup> CENTURY CONFERENCE RECOMMENDATIONS**

The conference participants were divided into groups for the mobile workshop. Each group was given an aerial map of the area and asked to draw their recommendations for improvement based upon their Site Analysis Inventory notes and information presented by Dan Burden. The following is a synopsis of the recommendations of the conference participants. A map illustrates potential pedestrian and bicycle improvements on page 9. If implemented, these recommendations will improve opportunities for bicycle and pedestrian travel in the area.

### **Create a Village Center Concept**

- C Awatukee Mercado (48<sup>th</sup> Street): create public gathering space with public art, fountain, pedestrian bridge & walking path providing access to library and post office with access to open space/green area.
- C Awatukee Plaza (51<sup>st</sup> Street): create a plaza on the southwest corner with mixed-use building, retail, office or condos at street front with parking in the rear.
- C Add trees and lighting to the parking lot and shopping center.
- C Create comfort and aesthetic appeal with benches, water fountains, flower pots, shade and public restrooms.
- C Encourage and develop active urban parks with services & commerce.
- C Convert the drainage way to a linear park with greenbelts and access to retail, streets, and neighborhoods.
- C Put in a theater or skating rink to draw neighbors together.

### **Streets**

- C Traffic calming – retrofit Elliott to include transit, bike and pedestrian amenities.
- C Add pedestrian and bicycle egress points from neighborhoods bycutting through walls on cul-de-sacs.
- C Narrow traffic lanes mid-block on Elliott and add bike lanes on both sides.
- C Make all sidewalks ADA accessible.

- C Create a boulevard atmosphere by adding trees on north side, south side and in the median of Elliott, and by widening the sidewalks.
- C Install roundabouts at both the 51<sup>st</sup> street and 48<sup>th</sup> street intersections.
- C Add a two-part mid-block crossing over the median for pedestrians.

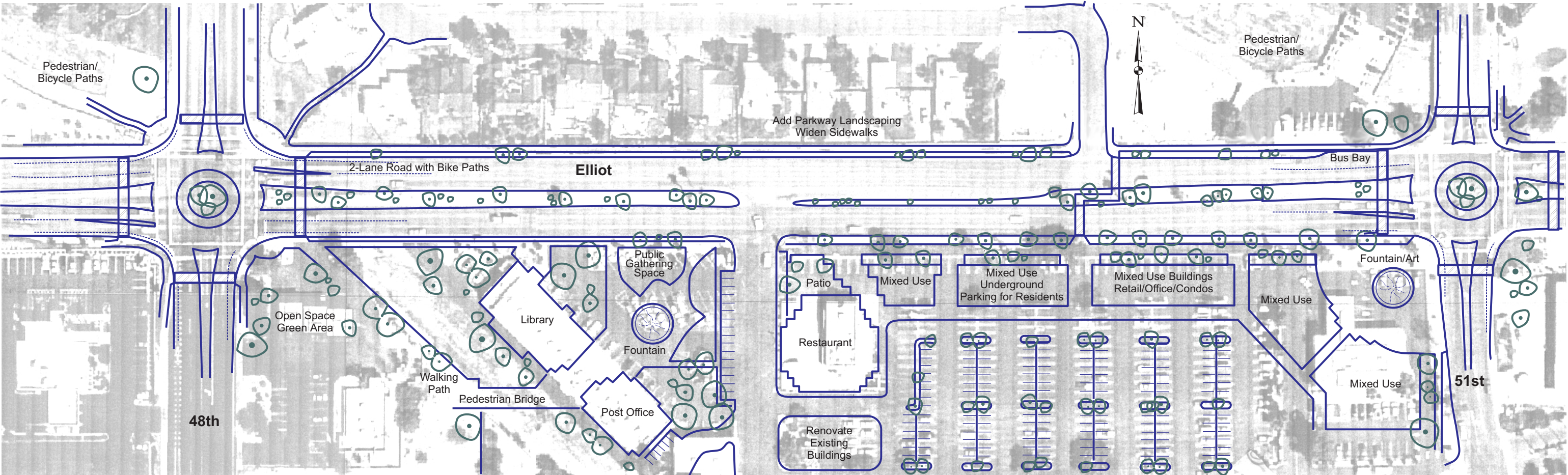
### **Transit and Bike Facilities**

- C Install bike racks at stores and at transit stops.
- C Make park and ride lots visible, comfortable and attractive.
- C Provide shelter at transit stops.

### **Community Commitment**

- C Establish a committee of local business owners, city staff and neighborhood representatives to implement ideas and changes to define Ahwatukee, which means “Home of my dreams”, as a community with a sense of place.

# Pedestrian and Bicycle Improvement Study Recommendations



**Elliot Street from 48th Street to 51st Street**

## Appendix

### Bicycle and Walking into the 21<sup>st</sup> Century Mobile Workshop Inventory/Site Analysis Form

Please use the following table to make observations and comments about the vicinity. Note differences between the two major commercial areas and about the overall area. Special thanks to Logan Simpson Design for the site analysis form.

	51 <sup>st</sup> Street Ahwatukee Plaza Intersection	48 <sup>th</sup> Street Ahwatukee Mercado
<b>PEDESTRIAN FACILITIES</b>		
Approximate Sidewalk Widths		
Sidewalk Condition		
Continuous, Without Gaps		
Connections to Shopping Areas		
Connections to Residential Areas		
Comfort/Safety Level Using Sidewalk		
Physical Separation from Traffic (Planting Strip)		
# of Driveway Curb Cuts per Block		
Noise Level Using Sidewalk		
Curb Cuts		
Ada Accessible		
Enhanced Pavement (Textures, Colors)		
Adjacent to Street/Curb		
Access Across Parking Lots		
Appropriate Lighting		
Shade/Street Trees		
Types of Users (Joggers, Skaters, Peds, Street Vendors)		
Encroachments (Power Poles, Trees, Trash Cans , Bike Racks, Newstands, Fire Hydrants, Others)		
<b>ARCHITECTURAL &amp; URBAN DESIGN ELEMENTS</b>		
Building Setbacks from Street		
Arcades, Shade Structures		
Porches, Balconies		
Alcoves, Inset Doorways		

	<b>51<sup>st</sup> Street Ahwatukee Plaza Intersection</b>	<b>48<sup>th</sup> Street Ahwatukee Mercado</b>
Building Entrances Accessible and Visible to Pedestrian on Sidewalk		
Distance Between Store Entrances (Encourages Walking?)		
Location of Parking (Hidden/ Front)		
Public Art		
Recognizable Architectural Character		
<b>AMENITIES</b>		
Water/Drinking Fountains		
Postal Boxes		
Green Spaces, Landscaping		
Public Places to Sit (Benches)		
Tables, Chairs, Umbrellas		
Misters		
Trash Cans		
Phone Booths		
Public Restrooms		
<b>DESTINATIONS</b>		
Neighborhoods/Residential Access		
Public Institutions (Library, Community Center)		
Places of Worship		
Bank		
Restaurants		
Post Office		
Grocery Store		
Video Store (For Steve Hancock)		
Medical, Dental, Veterinary, Etc...		
<b>TRANSIT FACILITIES</b>		
Bus Service		
Bus Stops		
Access to Commercial/ Residential Areas		
Comfort Level Crossing Street		
Shade: Natural or Facility		
Bench		

	51 <sup>st</sup> Street Ahwatukee Plaza Intersection	48 <sup>th</sup> Street Ahwatukee Mercado
<b>BICYCLE FACILITIES</b>		
Bike Lanes		
Wide Outside Lane, Shared Lane		
Bike Parking (Type & Location)		
Bike Lanes Leading from Neighborhood to Intersection		
<b>STREETS &amp; INTERSECTIONS</b>		
Signalized Intersections Approx. Waiting Time for Peds? Are They Ped Activated?		
Speed Limits		
Approx. Crossing Time for Peds		
Crossing Facilities at Intersections Without Signals?		
Curb Cuts?		
Audio Signal		
Medians		
Neighborhood Specific Signage?		
Lighting Levels (Dim, Bright, Vehicular or Pedestrian Level)		